

REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

Claims 1-25 are pending in the present application before this amendment. By the present amendment, Claims 17-18 has have been amended. No new matter has been added.

In response to the standing objection to Claim 5, the English translation of the HB definition in the Japanese Industrial Standard is attached hereto. Withdrawal of the objection to Claim 5 is respectfully requested.

Claims 17-18 stand objected to under 35 U.S.C. §112, ¶2, as being indefinite.

As clearly shown in an embodiment of FIG. 13, the claimed transferable scratch layer 10 may include one or more of a peeling layer 10b, a main protective layer 10a, and an adhesive layer 10c in different combinations. As such, it is clearly shown, described, and claimed in the present application (see for example FIG. 13 and the originally filed Claims 17-18) that the transferable protective layer is of a multi-layer structure (unless otherwise it is of a mono-layer structure, which is also possible) comprising one or more of these three layers as the components of the monolayer or multilayer structure.

Claims 17-18 have been amended to mainly clarify these features of the present invention. As to Claim 17, the transferable protective layer having at least two layers of the main protective layer and the adhesive layer (as shown in FIG. 13) is claimed. Likewise, as to Claim 18, the transferable protective layer having at least two layers of the main protective layer and the peeling layer (as shown in FIG. 13) is claimed. The

scope of the presently amended Claims 17-18 is also consistent and supported by the recited limitations of the originally filed Claims 17-18, which are a part of the disclosure for the present application. For these reasons, withdrawal of rejections to Claims 17-18 is respectfully requested.

Claims 1-6 and 8 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 4,273,362 (Carrier) in view of U.S. Patent No. 5,196,080 (Mizobuchi). The "et al." suffix, which may appear after a reference name, is omitted in this paper.

At the outset, it is respectfully pointed out that none of the pending Claims 1-25 (and the withdrawn Claims 26-53) is a product-by-process claim. A product-by-process claim as defined in MPEP §2173 (p)I is a product claim that defines the claimed product in terms of the process by which it is made. An example of a product-by-process claim would be "A product made by the process comprising steps 1, 2, 3, 4, and 5." No pending claim is defined in such way. It is not clear whether the Examiner has treated any of the pending claims as a product-by-process claim, even though the Office Action mentions it on page 4. If any of the pending claims were considered as a product-by-process claim for examination purposes, Applicants respectfully request a clear indication of which claims were considered as such and specific showing and rationale supporting such a conclusion.

As to Claim 1, it is respectfully asserted again that Applicants are claiming, inter alia, a **transferable scratch layer** comprising a **pattern layer** and a **hiding layer** that are **transferable** to a **different target medium** in **presence of heat**:

--...wherein the pattern layer and the hiding layer are transferable to a print

surface of the transfer-receiving material in presence of heat...--.

Neither Carrier nor Mizobuchi, whether they are considered individually or in combination, teaches this claimed limitation, among other limitations.

It has been pointed out in the previously filed Amendment that Mizobuchi does not at all disclose, teach, or suggest, inter alia, the claimed hiding layer, which is a part of the transferable scratch layer and transferable to a different material in presence of heat. That is, Mizobuchi may appear to describe merely a heat transfer sheet but does not teach or suggest, inter alia, the claimed hiding layer that is formed as one of the layers in the transferable scratch layer, which can then be transferred to the surface of the transfer-receiving material in presence of heat.

Carrier, like Mizobuch, also does not at all disclose, teach, or suggest, inter alia, the claimed hiding layer. Applicants respectfully point out again that Applicants are not simply claiming a hiding layer. The claimed hiding layer as recited in Claim 1 is a **hiding layer** that is **transferable** to a different print **material** in presence of **heat** (which claimed feature, among others, is not taught or suggested in Mizobuchi).

The Office Action's assertion that Carrier's cover layer 14 is considered equivalent to the claimed hiding layer is respectfully submitted to be incorrect. The fact that Carrier's cover 14 covers the indicia bearing sheet 12 does **not** lead to a conclusion that Carrier teaches or suggests the claimed **hiding layer** that is **transferable** to a different print **material** in presence of **heat**. The cover sheet 14 of Carrier is **not** transferable whether or not heat is present.

Carrier is well characterized by the following description in col. 1, lines 60-68:

Carrier is about providing a "novel indicia-bearing construction which effectively

prevents inspection of the indicia by a third party without the construction being so modified, as a result of inspection, that evidence of tampering is manifest on subsequent inspection of the construction, thereby alerting the recipient that tampering has taken place."

Carrier is not about providing the --scratch layer transfer sheet-- that is the claimed subject matter of the present invention. Nowhere in Carrier discloses, teaches, or suggests the claimed --scratch layer transfer sheet-- including the claimed **hiding layer** that is **transferable** to a different print **material** in presence of **heat**.

The Office Action's statement that "Carrier teaches a removable layer which means it must be transferred to something" is based on misunderstanding and a totally inaccurate mischaracterization of Carrier.

In fact, the claimed scratch layer transfer sheet of Claim 1 is totally different from the "indicia bearing assembly 10" of Carrier as this will be explained in detail below.

An indicia bearing article of Carrier has a multiplayer structure as represented by Figure 1 comprising an indicia bearing sheet (12) and a cover sheet (14). In the indicia bearing sheet (12) as specified in Claim 1 (a) of Carrier, a release coating (a base coat (20)) is provided between an indicia (27) which one wishes to conceal and a substrate (16).

The Office Action states that the indicia bearing article of Carrier is transferable due to the presence of the release coating, and the release coating of Carrier can be considered as an equivalent to the claimed peeling layer of the instant Claim 6 of the present application (Office Action, page 3).

However, the release coating of Carrier is for causing preferential delamination along a plane formed by the release coating before any delamination takes place at

along the indicia bearing surface (Claim 1 (c) and col. 3, lines 14-26). That is, the peeling function of the release coating is to prevent unauthorized persons from an attempt to read the indicia. **Therefore, the indicia bearing article of Carrier cannot be transferable whether or not heat is present.**

In addition, the base coat (20) (a release coating in Claim 1 (a) (2)) employed in Carrier is totally different from the peeling layer in the instant Claim 6 of the present application.

Further, in claim 1 of the present application concerning the scratch layer transfer sheet, a multilayer structure disposing a pattern layer and a hiding layer from the closest side of a substrate film is specified. When the multilayer structure is thermally transferred on a message to be hidden, the pattern layer is arranged on the hiding layer to have a pattern ratio of 5 to 85%/2cm². By having this state, the pattern layer exhibits the camouflage effect to improve the hiding effect of the hiding layer.

Also, as mentioned in the Specification of the present application, the conventional hiding layer which hides a message by conducting thermal transfer has a particular problem that the hidden message is more likely to emerge through the hiding layer compared with a hiding layer formed by coating of ink. In order to solve the problem, it is possible to increase the hiding property by providing the pattern layer having a pattern ratio between 5 and 85%/2cm² on the hiding layer formed on the message by thermal transfer as this is disclosed in the present application.

Finally, Carrier and Mizobuchi are improperly combined as no suggestion for motivation for combination is found. According to MPEP §2143.01, there must be some suggestion or motivation, either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art, to modify the reference to combine the reference teaching.

The suggestion or motivation to combine references must come from the cited prior art references, either explicitly or implicitly. The mere fact that the teachings of the prior art **can** be modified or combined does **not** establish a motivation or suggestion to combine and make the resultant combination prima facie obvious. **The prior art must suggest the desirability of the combination.** MPEP §2143.01.

As discussed above, there is no teaching or suggestion in Carrier about thermally transferring its hiding coat layer to a different print medium. There is no teaching or suggestion in Carrier that it is desirable to combine its teaching of the hiding coat layer for use in the lithography with the teaching of another reference such as Mizobuchi to show that the combination of these references teach the claimed invention of transferable scratch layer to be utilized in the field of thermography.

The Applicants respectfully submit that the conclusive statement of obviousness in the Office Action that the cover sheet 14 of Carrier can be applied in a thermography setting is based on an impermissible presumption. Applicants' response to such a conclusive statement of obviousness is that the basis for improperly finding the presently claimed invention obvious appears to be the teaching found in this application, and not in the prior art. Thus, the obviousness rejection in the Office Action improperly relies on the **impermissible hindsight reasoning**, because the rejection would not be obvious absent Applicants' disclosure in this application that discloses the claimed hiding layer that is transferable to a different medium in presence of heat. (See 37 C.F.R. § 1.104(c)(2).)

According to MPEP §2142, the hindsight reasoning based on Applicants' own disclosure is not permitted. Knowledge of Applicants' disclosure must be set aside. The Examiner must step back in time to when the invention was unknown and just before it was made. Only the fact gleaned from the prior art may be used.

In this regard, the teachings of Carrier are not analogous to the presently claimed invention. According to MPEP §2141.01(a), any prior art reference, in order to be modified or combined with another prior art reference, must be "analogous" to the claimed invention. In order for a prior art reference to be "analogous" to the Applicants' claimed invention, the prior art reference **must** (1) be "in the field of Applicants' endeavor;" or (2) if, not, then it must be reasonably pertinent to the problem addressed.

In re Wood, 599 F.2d 1032 (CCPA 1979).

First, Carrier cannot be considered to be "in the same field of Applicants' endeavor," because the presently claimed invention is in the field of **thermography** for raised surface printing, whereas Carrier is in the field of **providing a "novel indicia-bearing construction" for tamper-proofing**. Carrier does not at all relate to the thermography.

Therefore, in absence of any teachings or suggestion in Carrier that its cover sheet 14 is thermally transferable to a different target medium, it reasonably leads to a conclusion that any attempts to thermally transfer Carrier's cover sheet 14 utilizing heat will inevitably fail. According to MPEP §2143.02, there must be a reasonable degree of predictability of success of the proposed modification or combination of the prior art in order to establish prima facie obviousness. This burden of proof is initially born by the

Examiner, but the Office Action fails to provide this.

Further, Carrier does not teach about the increase of hiding property caused by providing the pattern layer on the hiding layer formed on the message by thermal transfer. The Office Action on page 4 asserts that producing the pattern ratio of the pattern layer on the hiding layer from 5 to 85%2cm² is only a routine skill; however, this conclusive statement of obviousness is also based on the impermissible presumption based on the disclosure of the present application, not from the prior art. Applicants respectfully request sufficient grounds either from the teachings of prior art and/or any proof that such knowledge is considered well known among the persons of the ordinary skill in the pertinent art.

Thus, even if Carrier is taken into account together with Mizubuchi, not all claimed limitations are taught or suggested to support the standing rejections based on obviousness grounds.

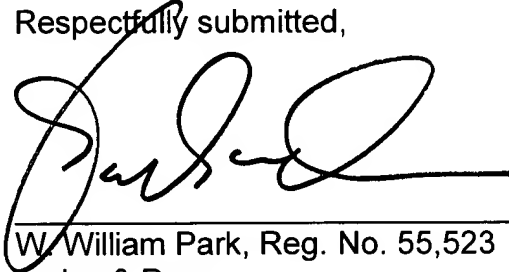
Accordingly, Claim 1 is considered to be in condition for allowance, and an indication thereof is respectfully requested.

All dependent Claims 2-26 are considered to be in condition for allowance at least since they depend from Claim1, which by the above reasons is considered to be in condition for allowance.

For the reasons set forth above, Applicants respectfully submit that Claims 1-26, pending in this application, are in condition for allowance over the cited references. This amendment is considered to be responsive to all points raised in the Office Action. Accordingly, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections and earnestly solicit an indication of allowable subject matter.

Should the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'William Park', is written over a horizontal line.

Dated: December 20, 2004

W. William Park, Reg. No. 55,523
Ladas & Parry
224 South Michigan Avenue
Chicago, Illinois 60604
(312) 427-1300

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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Black leads for wood-cased pencils — Classification and diameters

Mines graphite pour crayons à papier — Classification et diamètres

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Reference number
ISO 9180: 1988 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 9180 was prepared by Technical Committee ISO/TC 10, *Technical drawings*.

Black leads for wood-cased pencils — Classification and diameters

1 Scope

This International Standard specifies a classification and diameters for black leads used for wood-cased pencils.

2 Definitions

For the purposes of this International Standard, the following definitions apply.

2.1 black lead: Solid writing material which consists of carbon (e.g. graphite) and a binding agent. The lead generates black lines which are erasable.

2.2 hardness degree: Classification indicating increasing hardness from 6B to 9H and increasing line density from 9H to 6B.

NOTE — A scientific definition of hardness degree is not yet available.

2.3 wood-cased pencil: Hand-held drawing tool which has the lead permanently secured in a wood case and which is capable of withstanding the force involved in drawing.

3 Classification

Leads shall be classified according to their hardness degree into the following 17 types:

9H, 8H, 7H, 6H, 5H, 4H, 3H, 2H, H, F, HB, B, 2B, 3B, 4B, 5B and 6B

4 Diameters

Lead diameters shall be as specified in table 1.

Table 1 — Diameters

| Hardness degree (see 2.2) | Diameter mm |
|-----------------------------------|----------------|
| 9H, 8H, 7H, 6H, 5H, 4H, 3H, 2H, H | > 1,8 |
| F, HB, B, 2B, 3B, 4B, 5B, 6B | > 2 |

ISO 9180 : 1988 (E)

UDC 661.666.2.001.33 : 686.863.32 : 744.36

Descriptors : drawing equipment, pencils, leads (pencils), classification, dimensions.

Price based on 1 page
